

242. The spinal implant of claim 175, in combination with a fusion promoting substance.

243. The spinal implant of claim 242, wherein said fusion promoting substance includes at least one of bone morphogenetic protein, hydroxyapatite, genes coding for the production of bone, and bone.--

REMARKS

Applicant's representatives thank the Examiner for the opportunity to interview the Examiner on May 1, 2002. We discussed the pending independent claims in view of U.S. Patent 6,258,125 to Paul et al. The Examiner requested that we submit all arguments for patentability in our response to the Office Action.

Applicant amended claims 57 and 146 and added new claims 203-243 to further define Applicant's claimed invention. New claims 203-243 read on Group I, Species 4.

In the Office action dated January 9, 2002, the Examiner indicated that at least some of the claims might not read on the elected species and referred to claim 104 directed to a cap as an example. Applicant respectfully submits that the election is correct. The Examiner's attention is drawn to 35 U.S.C. § 113 (first sentence) which states that "the applicant shall furnish a drawing *where necessary for the understanding of the subject matter to be patented*" (emphasis added). While some of the claimed subject matter is not illustrated in the figures (e.g., a cap), Applicant submits that further illustrations are not necessary for an understanding of the subject matter sought to be patented.

In addition, many of the elected claims include a recitation of a material or composition, or a combination of a material or composition (see, for example, claims

85-99). MPEP § 601.01(f) states that "[...situations in which drawings are usually not considered necessary for the understanding of the invention under 35 U.S.C. 113 (first sentence) are: (A) Coated articles or products...[and] (B) Articles made from a particular material or composition..." (page 600-14, column 2 (August 2001)).

The Examiner rejected claims 57-108, 114-120, and 146-200 under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 6,258,125 to Paul et al. ('125). Independent claim 57 recites that the side facets have "at least a first portion in a plane passing through the longitudinal axis of said implant at an angle to the longitudinal axis." The side facets of Paul '125 do not have a portion in a plane passing through the longitudinal axis of the implant at an angle to the longitudinal axis.

Independent claim 146 recites that the left and right forward side facets have "at least a first portion in a plane at an angle to the longitudinal axis of said implant." Paul '125 does not teach nor suggest left and right forward side facets having at least a first portion in a plane at an angle to the longitudinal axis of the implant as claimed in Applicant's claimed invention.

Independent claim 175 recites that the left and right rearward side facets have "at least a first portion in a plane at an angle to the longitudinal axis of said implant." Paul '125 does not teach nor suggest left and right rearward side facets having at least a first portion in a plane at an angle to the longitudinal axis of the implant as claimed in Applicant's claimed invention.

Applicant submits that independent claims 57, 146, and 175 are patentable and that dependent claims 58-108, 114-120, 147-174, and 176-200 dependent from independent claims 57, 146, and 175, or claims dependent therefrom are patentable at

least due to their dependency from an allowable independent claim. Applicant submits that the rejections of these claims over the art of record have been overcome.

Please grant any extensions of time required to enter this reply and charge any additional required fees to our deposit account 50-1066.

Respectfully submitted,

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CHANGES TO THE CLAIMS

Please amend the claims as follows:

57. (Twice amended) An interbody spinal implant for insertion between adjacent vertebral bodies of a human spine, said Implant comprising:

a leading end for introduction of said spinal implant into the spine, an opposite trailing end, spaced apart sides therebetween, and a longitudinal axis passing through said leading and trailing ends;

opposite upper and lower surfaces between said leading and trailing ends and said spaced apart sides, said upper surface adapted for placement in engagement with the bone of one of the vertebral bodies and said opposite lower surface adapted for placement toward the bone of the other of the vertebral bodies when said implant is placed between the adjacent vertebral bodies; and

a first plurality of bone engaging structures formed on said upper and lower surfaces, at least one of said first plurality of bone engaging structures comprising a surface projection having at least one forward facing facet directed at least in part toward said leading end and at least one rearward portion directed at least in part toward said trailing end, said forward facet and said rearward portion having a length and a slope, the length of said forward facet being longer than the length of said rearward portion, the slope of said rearward portion being steeper than the slope of said forward facet, said projections having opposed side facets between said forward facet and said rearward portion, each of said side facets having at least a first portion in a

plane ~~passing through at an angle to~~ the longitudinal axis of said implant at an angle to the longitudinal axis.

146. (Twice amended) An interbody spinal implant for insertion between adjacent vertebral bodies of a human spine, said implant comprising:

a leading end for introduction of said spinal implant into the spine, an opposite trailing end, spaced apart sides therebetween, and a longitudinal axis passing through said leading and trailing ends;

opposite upper and lower surfaces between said leading and trailing ends and said spaced apart sides, said upper surface adapted for placement in engagement with the bone of one of the vertebral bodies and said opposite lower surface adapted for placement toward the bone of the other of the vertebral bodies when said implant is placed between the adjacent vertebral bodies; and

a plurality of bone engaging structures formed on said upper and lower surfaces, of at least one of said plurality of bone engaging structures comprising a surface projection having at least a left forward side facet and a right forward side facet directed at least in part toward said leading end and said sides, respectively, and a single rearward facet directed at least in part toward said trailing end, said left and right forward side facets having at least a first portion in a plane at an angle to the longitudinal axis of said implant.